

AN 1986-261423 JAPIO  
TI SURFACE HARDENING METHOD FOR END PART OF CYLINDRICAL MEMBER BY HIGH FREQUENCY HARDENING  
IN ONISHI MASAZUMI  
PA TOYOTA MOTOR CORP  
PI JP 61261423 A 19861119 Showa  
AI JP 1985-100090 (JP60100090 Showa) 19850511  
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SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1986  
AB PURPOSE: To prevent a quenching crack and to increase the depth of hardening by heating the end part of a cylindrical member to the austenitizing temp. by high frequency heating with a hardening coil placed opposite to the end part thereof and by immediately spraying a quenching medium on the end, the inside and outside periphery of the end part to cool them.  
CONSTITUTION: The end part of a cylindrical metallic member is heated to the austenitizing temp. by high frequency heating with a hardening coil placed opposite to the end of the end part at about 2mm interval while the member is turned around its axis at about 100r.p.m. A cooling medium is then sprayed at once on the end, the inside and outside periphery of the end part at 10&sim;150l/min rate to cool them.  
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